

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1-16 are currently being amended, and new claims 17-22 are added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-22 are now pending in this application.

Claim Objections

The PTO has objected to claim 1 because “(EGR)” was considered more appropriate than (“AGR”). Claim 1 has been amended to remove “(EGR)” from claim 1. Reconsideration and withdrawal of this objection is respectfully requested.

Rejection of claims 1-2 as being anticipated by Brigham.

The PTO has rejected claims 1-2 under 35 U.S.C. § 102 as being anticipated by U.S. Patent 4,685,292 to Brigham et al. (“Brigham”). For at least the following reasons, this rejection is traversed insofar as it may be applied to claims 1 and 2, as amended.

Claim 1 has been amended to recite that “a sliding fit is arranged on one surface of the external housing jacket” and that “the sliding fit comprises a sliding seal for preventing the coolant or the exhaust gas from flowing through the sliding fit.” Brigham teaches a sliding fit in which a corrugated tube 50 is attached to a sleeve 60 and the sleeve 60 is capable of sliding in a traverse baffle 36. Brigham, however, does not disclose that the sliding fit is on one surface of the external housing jacket or that it comprises a seal to prevent the coolant or the exhaust gas from flowing through the sliding fit. Because the reference does not disclose these features, the invention of claim 1 is not anticipated by Brigham.

Claim 2 is not anticipated by Brigham for at least the same reasons as independent claim 1 from which it depends.

For at least these reasons, reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of dependent claims 3-16 as being unpatentable over Brigham in view of Metcalfe.

The PTO has rejected claims 3-16 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent 4,685,292 to Brigham et al. ("Brigham") in view of U.S. Patent 4,171,832 to Metcalfe. For at least the following reasons, this rejection is traversed.

As a threshold matter, Brigham is deficient as an anticipation of the parent claim, as explained above, and Metcalfe does not remedy the deficiencies of Brigham. For this reason alone, the rejection is inadequate to meet the claims.

In regard to claim 3 of the present application, this claim includes the feature that the sliding fit is arranged between a first pipe plate and the housing jacket. Brigham does not show the sliding fit arranged between a pipe plate and the housing jacket, as pointed out by the PTO in paragraph 6 of the Office Action. The PTO asserts that Metcalfe does show a sliding fit arranged between a pipe plate and the housing jacket and that it would have been obvious to modify Brigham by arranging the sliding fit between the pipe plate and the housing jacket, because it would have properly positioned the tubes, as disclosed by Metcalfe. The Applicants respectfully disagree for at least the following reasons.

On the one hand, the combination of Brigham and Metcalfe does not render claim 3 unpatentable because the proposed combination does not teach all the claimed limitations. Metcalfe does not teach either a sliding fit of any kind, let alone a sliding fit between a pipe plate and the housing jacket. Metcalfe does not relate to sliding fits using a sliding seal, but rather relates to so-called relaxing joints, which are not sliding seals but are seals made of a sealing material that "flows." See, e.g., column 6, lines 56-60, of Metcalfe.

Further, the PTO points to FIG. 4 of Metcalfe as disclosing a sliding fit between a pipe plate and the housing jacket, but this figure shows a sliding fit between the pipe plate 50 and a tube 56. Sleeve 78 in FIG. 4 is not a housing jacket that forms an enclosed structure with the pipe plates. Because Metcalfe does not disclose either a sliding fit of any kind, let alone a sliding fit between a pipe plate and the housing jacket, the proposed combination of Brigham and Metcalfe does not meet all the features of claim 3. Thus, claim 3 is not rendered unpatentable over the prior art.

Second, there is no motivation or suggestion to combine Brigham and Metcalfe. Brigham's invention is related to a cooling system for engine exhaust gases (Abstract of Brigham) that are exposed to temperatures up to 1000 °F (column 1, lines 12-43 of Brigham) in internal combustion engines (column 1, lines 6-11 of Brigham). Metcalfe's invention is related to techniques for joining ceramic components intended for high temperature applications (column 2, lines 21-27 of Metcalfe), such as indirectly fired gas turbines (column 5, lines 11-16 of Metcalfe), where temperatures may reach 2100 °F (Fig. 1 of Metcalfe). The two references deal with different problems because Brigham does not deal with the high temperatures and the ceramic materials that Metcalfe has to handle. Thus, one with ordinary skill in the art would not have been motivated to look to the teachings of Metcalfe since Metcalfe is dealing with higher temperature applications and ceramic materials and Brigham does not. Therefore, the combination of Brigham and Metcalfe is improper because there is no motivation or suggestion to modify Brigham in view of Metcalfe.

For at least these reasons, claim 3 is not rendered unpatentable over the prior art.

In regard to claim 4, the invention of claim 4 is not rendered unpatentable over Brigham in view of Metcalfe because there is no motivation to combine the references, as presented above, and the combination does not teach an end region of the housing jacket that overlaps another end region of the housing jacket. Fig. 3 of Metcalfe merely shows a pipe connection and not a sliding fit for a housing jacket.

Claims 5-11 are not rendered unpatentable over prior art for at least the same reasons as claim 4 from which they depend. Further, FIGS. 2-9 of Metcalfe do not show an end region of the housing jacket overlapping another end region of the housing jacket, as asserted by the PTO (see paragraph 6 of the Office Action). Thus, it is improper to rely on these figures for this teaching.

Claims 12-16 are not rendered unpatentable over prior art for at least the same reasons as independent claim 3 from which they depend.

Further, in regard to claims 13-16, the MPEP 2143 states that :

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally,

the prior art reference (or references when combined) must teach or suggest all the claim limitations.

In this case, the PTO has not provided any motivation or suggestion from the prior art or from general knowledge for proposing the claimed drainage in the combination of Brigham and Metcalfe. Also, the PTO has not provided any reference that teaches the claimed drainage pathway. As noted above, Brigham does not deal with a seal in the external housing, and neither does Metcalfe. Thus, there is no reason to provide a vent in the housing to the atmosphere. Because at least the first and third criteria have not been met, the PTO has not established a *prima facie* case of obviousness.

For at least these reasons, reconsideration and withdrawal of the rejection are respectfully requested.

New claims 17, 18 and 19 are directed to additional preferred aspects of the present invention and are believed to be allowable for at least the reasons set forth above with regard to their parent claims, apart from the recitation of further advantageous subject matter in the new claims. New claims 20 and 21 are directed to combinations of the heat exchanger according to the invention in the context of a motor vehicle exhaust system. These claims are allowable for at least the reasons given above in support of their parent claims. New claim 22 is directed to a novel method for fabricating a heat exchanger of the type as defined by claim 8 of the application. Claim 22 is believed patentable for the reason that it depends from a claim that is, in Applicant's view, allowable, and also for the reason that claim 22 recites a new and unobvious combination of method steps that provides valuable advantages in the fabrication of the subject heat exchangers.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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